

### CO<sub>2</sub> Emissions and Global Warming to Get Critical Review at Annual Conference

Carbon dioxide (CO<sub>2</sub>) emissions, their possible effect on global warming, and various technical approaches to limiting atmospheric concentrations of so-called greenhouse gases (GHGs) will be the focus of the 2003 Critical Review, which will be presented at A&WMA's 96th Annual Conference & Exhibition in San Diego, CA, June 22–26.



Dr. Curt M. White

The 2003 Critical Review, entitled "Separation and Capture of CO<sub>2</sub> from Large Stationary Sources and Sequestration in Geological Formations—Coalbeds and Saline Aquifers," will be presented on Wednesday, June 25, 2003, by Dr. Curt M. White, carbon sequestration science focus area leader at the National Energy Technology Laboratory (NETL) in Pittsburgh, PA. In addition, throughout the four-day conference, more than a dozen papers and panel discussions will build on these major themes and will delve into a range of related issues, from removal of CO<sub>2</sub> from flue lines to cross-border air pollution issues and environmental quality in Latin America.

#### CRITICAL ISSUES EXAMINED IN-DEPTH

The 2003 Critical Review can be expected to live up to the high standards established by previous reviews, taking a top-to-bottom look at global warming, including a description of GHGs and their linkage to rising average temperatures and climate change. Some of the many topics to be discussed include anthropogenic CO<sub>2</sub> emissions sources and estimates, the Kaya identity, CO<sub>2</sub> separation and capture from fossil fuel combustion and gasification facilities, separation and capture of CO<sub>2</sub> from flue and fuel gas, and existing commercial CO<sub>2</sub> capture facilities. Two technologies for the storage of captured CO<sub>2</sub> will be reviewed: sequestration in deep unminable coalbeds (with concomitant recovery of methane) and sequestration in deep saline aquifers. The estimated available storage capacity will be delineated, along with a description of gas storage mechanisms and the physical, chemical, and geological phenomena that occur when CO<sub>2</sub> is injected into these structures.

Dr. White has more than 30 years of industrial, government, and academic research experience in the area of fossil fuel science, including polycyclic aromatic hydrocarbon chemistry, the analytical chemistry of fossil fuels, the geochemistry

of sulfur in fossil fuels, and supercritical fluid technologies, such as extraction and chromatography. Brian Strazisar, Evan Granite, James S. Hoffman, and Henry W. Pennline, colleagues of Dr. White at NETL, are co-authors.

The Critical Review has been part of A&WMA's Annual Conference & Exhibition since 1973, and was introduced to encourage the thorough examination and discussion of complicated issues. Each year, a distinguished scientist is invited to prepare the review, which undergoes intense scrutiny by A&WMA's Critical Review Committee and is then released for study by the environmental community at large through publication in the June issue of the *Journal of the Air & Waste Management Association*. Anyone interested in this subject is invited to read and comment on the Critical Review, and to participate in the discussion following the presentation. For more information on the 2003 Critical Review and the 96th Annual Conference & Exhibition, visit [www.awma.org/ACE2003](http://www.awma.org/ACE2003). ☺